

IN THE CLAIMS

✓  
Please **cancel** claims 5, 10-12, 14, 23, 26, and 29-30 without prejudice.

Please **amend** claim 1 with the following rewritten claim:

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OK

1. (AMENDED) An isolated nucleic acid comprising a nucleic acid sequence encoding a thanatin peptide which comprises the amino acid sequence of Formula I:  
(I) Xaa-Ile-Ile-Tyr-Cys-Asn-Arg-Arg-Thr-Gly-Lys-Cys<sup>f</sup>-Xab  
in which  
Xaa is NH<sub>2</sub> or a variable residue having a sequence from 1 to 10 amino acids, and  
Xab is OH or a variable residue having a sequence from 0 to 5 amino acids.

[ Please **amend** claim 2 with the following rewritten claim ]

2. (AMENDED) The isolated nucleic acid of claim 1, wherein the nucleic acid is DNA.

[Please **amend** claim 3 with the following rewritten claim:]

3. (AMENDED) The isolated nucleic acid of claim 2,  
wherein the nucleic acid sequence is selected from the  
group consisting of SEQ ID NO:1 and the complement of  
SEQ ID NO:1.

[Please **amend** claim 4 with the following rewritten claim:]

4. (AMENDED) The isolated nucleic acid of claim 2,  
wherein the nucleic acid sequence is selected from  
the group consisting of SEQ ID NO:2 and the complement  
of SEQ ID NO:2.

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Please **amend** claim 6 with the following rewritten claim:

6. (AMENDED) The isolated nucleic acid of claim 1 further  
comprising a second nucleic acid sequence, wherein  
said second nucleic acid sequence encodes a signal  
peptide or a transit peptide and is operably linked to  
the first nucleic acid sequence.

[Please **amend** claim 7 with the following rewritten claim:]

7. (AMENDED) The isolated nucleic acid of claim 6,  
wherein the signal peptide encoded by the second  
nucleic acid sequence is the signal peptide from the  
tobacco PR-1a gene.

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amend

[Please **amend** claim 8 with the following rewritten claim:]

8. (AMENDED) The isolated nucleic acid of claim 1,  
wherein the nucleic acid sequence is selected from the  
group consisting of SEQ ID NO:5, nucleotides 12 to 164  
of SEQ ID NO:5, the complement of SEQ ID NO:5, and the  
complement nucleotides 12 to 164 of SEQ ID NO:5.

[Please **amend** claim 9 with the following rewritten claim:]

9. (AMENDED) The isolated nucleic acid of claim 8,  
wherein the nucleic acid sequence is nucleotides 12 to  
164 of SEQ ID NO:5.
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Please **amend** claim 13 with the following rewritten claim:

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13. (AMENDED) A chimeric gene comprising a coding sequence operably linked to at least one heterologous regulatory element, wherein said coding sequence comprises a nucleic acid sequence encoding a thanatin peptide which comprises the amino acid sequence of Formula I:

(I) Xaa-Ile-Ile-Tyr-Cys-Asn-Arg-Arg-Thr-Gly-Lys-Cys-Xab

in which

Xaa is NH<sub>2</sub> or a variable residue having a sequence from 1 to 10 amino acids, and

Xab is OH or a variable residue having a sequence from 0 to 5 amino acids.

Please **amend** claim 15 with the following rewritten claim:

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15. (AMENDED) The chimeric gene of claim 13, further comprising a selectable marker.

[Please **amend** claim 16 with the following rewritten claim:]

16. (AMENDED) An expression vector comprising at least one replication origin and a chimeric gene which comprises a coding sequence operably linked to at least one heterologous regulatory element, wherein said coding sequence comprises a nucleic acid sequence encoding a thanatin peptide which comprises the amino acid sequence of Formula I:

(I) Xaa-Ile-Ile-Tyr-Cys-Asn-Arg-Arg-Thr-Gly-Lys-Cys-Xab

in which

Xaa is NH<sub>2</sub> or a variable residue having a sequence from 1 to 10 amino acids, and

Xab is OH or a variable residue having a sequence from 0 to 5 amino acids.

[Please **amend** claim 17 with the following rewritten claim:]

17. (AMENDED) The expression vector of claim 16, wherein said expression vector is a viral plant transformation vector.

[Please **amend** claim 18 with the following rewritten claim:]

18. (AMENDED) The expression vector of claim 16, wherein said expression vector is a plasmid.

*CH cont'd*  
[Please **amend** claim 19 with the following rewritten claim:]

- Sch*  
*D4*  
19. (AMENDED) A transformed host cell comprising a chimeric gene which comprises a coding sequence operably linked to at least one heterologous regulatory element, wherein said coding sequence comprises a nucleic acid sequence encoding a thanatin peptide which comprises the amino acid sequence of Formula I:

(I) Xaa-Ile-Ile-Tyr-Cys-Asn-Arg-Arg-Thr-Gly-Lys-Cys-Xab

in which

Xaa is NH<sub>2</sub> or a variable residue having a sequence from 1 to 10 amino acids, and

Xab is OH or a variable residue having a sequence from 0 to 5 amino acids.

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*cancel*

[Please **amend** claim 20 with the following rewritten claim:]

20. (AMENDED) The transformed host cell of claim 19,  
wherein the transformed host cell is a plant cell.

[Please **amend** claim 21 with the following rewritten claim:]

21. (AMENDED) A plant comprising at least one transformed  
host cell of claim 20.

[Please **amend** claim 22 with the following rewritten claim:]

22. (AMENDED) The plant of claim 21, wherein substantially  
all of the cells of the plant are transformed host  
cells of claim 20.
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Please **amend** claim 24 with the following rewritten claim:

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- C5*
24. (AMENDED) The plant of claim 22, wherein the plant is  
resistant to at least one disease.

[Please **amend** claim 25 with the following rewritten claim:]

25. (AMENDED) The disease-resistant plant of claim 24,  
wherein said disease is caused by at least one  
microorganism selected from the group consisting of  
*Cercospora*, *Cladosporium*, *Fusarium*, and *Phytophthora*.

Please **amend** claim 27 with the following rewritten claim:

27. (AMENDED) A seed of the transformed plant of claim 24,  
wherein the seed retains the nucleic acid.

[Please **amend** claim 28 with the following rewritten claim:]

28. (AMENDED) A method of transforming a cell of a host  
organism comprising contacting the cell of the host  
organism with a chimeric gene which comprises a  
coding sequence operably linked to at least one  
heterologous regulatory element, wherein said coding  
sequence comprises a nucleic acid sequence encoding a  
thanatin peptide which comprises the amino acid  
sequence of Formula I:

(I) Xaa-Ile-Ile-Tyr-Cys-Asn-Arg-Arg-Thr-Gly-Lys-Cys-Xab



in which

*C6 amend*  
Xaa is NH<sub>2</sub> or a variable residue having a sequence  
from 1 to 10 amino acids, and

Xab is OH or a variable residue having a sequence  
from 0 to 5 amino acids.

under conditions that permit said cell to take up said  
chimeric gene.

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Please **add** new claim 31 as follows:

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- C1*
31. (NEW) The method of claim 28, wherein the host  
organism is a plant and said method further comprises  
regenerating a transformed plant from said transformed  
cell.

[Please **add** new claim 32 as follows:]

32. (NEW) The method according to claim 29, further  
comprising cultivating the transformed plant under  
conditions that permit expression of said nucleic acid  
sequence encoding the amino acid sequence of Formula  
I, wherein the expression of said nucleic acid

sequence confers disease resistance upon the transformed plant.

[Please **add** new claim 33 as follows:]

33. (NEW) The disease resistant plant of claim 25, wherein said plant is resistant to at least one microorganism selected from the group consisting of *Cercospora beticola*, *Cladosporium herbarum*, *Fusarium culmorum* or *Fusarium graminearum* or *Phytophthora cinnamomi*.

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cont'd

[Please **add** new claim 34 as follows:]

34. (NEW) A method of generating a transformed progeny plant comprising:

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crossing a plant having at least one gametophyte comprising a chimeric gene which comprises a coding sequence operably linked to at least one heterologous regulatory element, wherein said coding sequence comprises a nucleic acid sequence encoding the amino acid sequence of Formula I:

(I) Xaa-Ile-Ile-Tyr-Cys-Asn-Arg-Arg-Thr-Gly-Lys-  
Cys-Xab

in which

Xaa is NH<sub>2</sub> or a variable residue having a  
sequence from 1 to 10 amino acids, and

Xab is OH or a variable residue having a sequence  
from 0 to 5 amino acids; and

cultivating the plant under conditions that permit  
formation of at least one seed; and

cultivating the seed under conditions that permit  
the seed to grow into a progeny plant,

wherein the progeny plant retains the nucleic acid.

[Please **add** new claim 35 as follows:]

35. (NEW) The isolated nucleic acid of claim 1, wherein  
the nucleic acid sequence is selected from the group  
consisting of SEQ ID NO:1 and the complement of SEQ ID  
NO:1.

[Please **add** new claim 36 as follows:]

36. (NEW) An isolated nucleic acid comprising a nucleic  
acid sequence encoding the sequence of amino acids 2-  
12 of SEQ ID NO:14.
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